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## TECHNICAL FIELD OF THE INVENTION

## BACKGROUND OF THE INVENTION

However, when the pre-determined arrangement of symbols including at least one wild  
15 symbol establishes multiple wins, the player may be confused and may not understand by which  
arrangement of symbols he has won. Therefore it is desirable to display the winning arrangement  
including the wild symbol so that the players can easily understand.

The present invention considers these backgrounds and provides a game machine that is capable of arousing the interest and the anticipation of the players by displaying the arrangement of



in the changing display become static again in the multiple areas; a static symbol determining module that determines each symbol to be in static display in the display areas; an evaluation module that can recognizing arrangements of the static symbols determined by the static symbol determination module; and a display mechanism that visually displays either arrangements of symbols by which multiple wins are established and/or win lines that are related to such arrangements of symbols, when the evaluation module recognizes and determines that pre-determined combinations of symbols, in which at least one wild symbol is included, are arranged in such a way that multiple wins are established.

Regardless of whether the symbols are really displayed statically or not, when the static evaluation module recognizes the multiple winning arrangements of symbols, one of which is the wild symbol, the symbols in the pre-determined arrangement and the win line which is related to these symbols are displayed visually. By these displays, the player can recognize easily which combinations and arrangements of symbols made him win. As a result the player's interests in the game are aroused.

According to another aspect, the present invention provides a game machine in which the display mechanism sequentially displays either the symbols in the multiple winning arrangements and/or the win lines related to the symbols in the multiple winning arrangements according to each individual winning pattern established by the arrangements of the symbols.

Thus, the win lines are sequentially displayed according to each individual winning pattern established by the arrangements of symbols. In other words, the win lines are displayed one by one with time intervals. This procedure allows the player to grasp the established win line more easily than all the win lines are displayed at one time. As a result of the player's interests in the game are aroused.

According to another aspect, the present invention provides a game machine in which the



the player can know that he won before all the reels stop, he is eager to know by which combination of symbols he won. As a result the anticipation of the player to the game result is aroused.

According to another aspect, the present invention provides a game machine that also includes a selection module that selects a multiplication factor for the game points that is pre-determined according to the winning arrangement of the symbols wherein the multiplication factor, together with the wild symbol, is displayed in each display area of the display module where the wild symbol is displayed.

Since the multiplication factor for the game points is selected according to the winning  
10 arrangements of symbols and displayed together with the wild symbol, the player becomes eager to  
know the winning game points. As a result the player's anticipation to the game result is aroused.

According to another aspect, the present invention provides a game program that reads a series of operations into a computer and performs conversion to commands to execute the operations, wherein the series includes the following operations: providing a display which consists of a changing display in which multiple static symbols displayed in multiple areas are changing constantly to various symbols including a wild symbol, and a static display in which the symbols in the changing display become static again in the multiple areas; determining the static symbols in each of the display areas; recognizing the arrangement of the selected symbols; and providing visual display of either arranged symbols and/or a win line associated with the multiple winning arrangement of symbols when the pre-determined combination of the symbols are arranged so that multiple wins are established by including at least one of the wild symbols.

Thus, the symbols of the pre-determined arrangement or the win line related to the symbols are visually displayed, when the arrangements of the symbols that are selected by the symbol selection module, regardless if the symbols are displayed statically or not, are the pre-determined

combinations of symbols arranged in such a way that a multiple wins are established by including at least one wild symbol. By these displays the player can easily recognize that not only the winning but also the winning combinations and arrangements of the symbols. As a result the player's interest in the game is aroused.

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## BRIEF EXPLANATION OF THE FIGURES

Fig. 1 is a perspective drawing showing the exterior of the game machine related to an embodiment of the present invention;

10 Figs. 2A and 2B are block diagrams of the electric composition of the game machine related to an embodiment of the present invention;

Fig. 3 is a flow chart of the operations of the game machine related to an embodiment of the present invention;

Fig. 4 is an example of a display in the symbol display module;

Fig. 5 is an example of a display in the symbol display module;

15 Fig. 6 is an example of a display in the symbol display module;

Fig. 7 is an example of a display in the symbol display module; and

Fig. 8 is an example of a display in the symbol display module.

## LIST OF DESIGNATORS

20 1: game machine, 2: case, 3: front panel, 7: symbol display module, 30: CPU, 31: ROM, 32: RAM, 37: display module control circuit, 61: the upper frame of the first reel, 62: the upper frame of the second reel, 63: the middle frame of the third reel, 64: the middle frame of the first reel, 65: the lower frame of the second reel, 66: the upper frame of the fourth reel, 67: the middle frame of the fifth reel, 71: the first reel, 72: the second reel, 73: the third reel, 74: the fourth reel, 75: the







As shown in Fig. 4, the symbol display module 7 includes five reels that can display symbols in a changing or static manner along the column direction (vertically with respect to the game machine). More specifically, there are: a first reel 71, a second reel 72, a third reel 73, a fourth reel 74 and a fifth reel 75. The reels 71 - 75 can display the symbols in a changing or static manner.

The symbol display module 7 displays the wild symbol and other types of symbols and as described above, displays multiple types of symbols in a vertically changing manner. Based upon the result of the internal selection, symbols in the changing display are then stopped.

When it is determined that a pre-determined combination of symbols is displayed in multiple winning arrangements including at least one common wild symbol, the player may not realize by which combination of symbols he won. This embodiment of the present invention demonstrates the combinations of ant symbols 85 at the upper frame 61 of the first reel, the upper frame 62 of the second reel, and the middle frame 63 of the third reel; and mole symbols at the middle frame 64 of the first reel, the lower frame 65 of the second reel, the middle frame 63 of the third reel, the upper frame 66 of the fourth reel, and the middle frame 67 of the fifth reel. In this case, the wild symbol of the middle frame 63 of the third reel is used as the ant symbol 85 and also used as the mole symbol 86. When multiple wins are won by the arrangements sharing a wild symbol as shown above, the symbols in the winning arrangements are displayed in different and overlapping arrangements, and the wild symbol functions as multiple and different symbols. Therefore, it is difficult for the player to understand by which combination or arrangement of symbols he won. This embodiment of the present invention, as shown in Fig. 5, provides each symbol with a vibrating function when the winning arrangements are composed. By this vibration, the player can easily recognize the winning combinations and arrangements of the symbols. Thus, the interest of the players is attracted to this game and the anticipation for the change of the game









fifth reel. The time interval may be, for example, 0.5 seconds. In this embodiment, as shown in Fig. 5, the wild symbol is displayed statically in the middle frame 63 of the third reel, the ant symbols 85 are displayed statically in the upper frame 61 of the first reel and the upper frame 62 of the second reel, and the mole symbols 86 are displayed statically in the middle frame 64 of the first reel, the lower frame 65 of the second reel, the upper frame 66 of the fourth reel and the middle frame 67 of the fifth reel. Next, an evaluation is performed to see if there is a normal game win, and an evaluation is performed to see if there is a win based on multiple combinations involving a shared wild symbol (step S3).

As the result of these evaluations, as shown in Fig. 5, it is found that wins are established in the win line formed by the upper frame 61 of the first reel, the upper frame 62 of the second reel, and the middle frame 63 of the third reel, as well as by the win line formed by the middle frame 64 of the first reel, the lower frame 65 of the second reel, the middle frame 63 of the third reel, the upper frame 66 of the fourth reel, and the middle frame 67 of the fifth reel. When wins are established by multiple combinations of the symbols including the wild symbol, the wild symbol and the symbols involved in the wins or the win lines related to the wins are displayed visually by animation (step S6). For example, as shown in Fig. 5, the symbols in the win arrangements are vibrated. Further, as to the wild symbol 81, a display depicting a voice shouting "wild" from a hole is shown. At this time, voice data for shouting "wild" may actually be output through a speaker. As a result, the player can easily recognize that the pre-determined combinations of the symbols including a common wild symbol are arranged in multiple winning arrangements, that the specific wild symbol is shared by the multiple winning arrangements, and that the wins are established by the specific arrangements composed of the combination of the specific symbols, thus attracting the player's interest to this game.

As described above, the symbols in the winning arrangements that include the wild symbol

or the win line related to such symbols are vibrated by animation but another method may be employed to display these symbols visually. For example, the shape, the pattern, the color of the symbols or the linkage among the symbols may be changed. By these changes in display the player can recognize the common wild symbol, the symbols involved in the winning arrangements, and the arrangements of the symbols.

Next, the game point multiplication factor selection based on the wild symbol is displayed by animation (step S7) and a random number for a multiplication factor for the game points is obtained (step S8). As shown in the middle frame 63 of the third reel in Fig. 6, the multiplication factor for the game points is determined and displayed in a multiplication factor animation in the wild symbol (step S9). In this embodiment, as shown in the symbol 82 in Fig. 6, a mole with different features from other moles (for example, a mole looking like a middle aged woman) is animated to show its face from the hole in the wild symbol shown in Fig. 5, with a card displaying the multiplication factor that suggests the game points are changed. This continuous-time animation depicts a mole jumping out of the hole of the wild symbol.

In Fig. 6, the multiplication factor for the game points is determined to be 2 but this factor can be changed to 3, 4, or higher according to the random numbers obtained for the multiplication factor for the game points. The player's anticipation for the multiplication factor is increased through this process. When the multiplication factor is determined, the pre-determined game points are multiplied by the multiplication factor and paid out with coins.

In the above mentioned explanation, the wild symbol 82 was depicted as a mole looking like a middle aged woman in animation. However, the wild symbol 82 may be depicted as other figures and does not need to be in animation. Therefore, the present invention can be applied to game machines not only with video reels but also with mechanical reels.

Further, the display of the multiplication factor for the game points is not restricted to the







The characteristic operations of the present invention as described above are carried out by executing a control program by a computer. The control program reads a series of operations into a computer at the start of a game and turns them into executable commands wherein the series comprises the following operations: executing a changing display in which multiple static symbols  
5 displayed in multiple areas are changing constantly to various symbols including a wild symbol, and a static display in which the symbols in the changing display become static again in the multiple areas; determining a static symbol in each display area; recognizing the arrangement of the determined symbols; and executing a visual display of arranged symbols and the win lines that are related to multiple winning arrangements of symbols when the pre-determined combinations of  
10 the symbols are arranged in such a way that multiple wins are established by including at least one wild symbol.

Thus, the symbols of the pre-determined arrangement or the win line related to these symbols are displayed visually, when the arrangements of the symbols that are determined by the static symbol determining module, regardless of whether the symbols are displayed statically or  
15 not, form a pre-determined combination of symbols arranged in such a way that multiple wins are established by including at least one wild symbol. By these displays, the player can easily recognize not only when there is a win but also the winning combination and arrangement of the symbols that established the win. As a result, the interest of the player in the game is aroused.

The above mentioned program can be obtained in a recorded state in memory media such  
20 as CD-ROM, DVD, or the like. These programs can be obtained also by receiving the signals from a computer that is a data transmitting device through communication networks such as public telephone lines, private telephone lines, cable television lines, and wireless communication lines. These signals are the computer data signals embodied in a pre-determined carrier wave containing the program. When transmitting the program, only a part of the program needs to be transmitted



